

**TO:** Board Members

**THROUGH:** Kevin Patteson, Executive Administrator  
John Steib, Chief Deputy Executive Administrator and Acting Chief Financial Officer  
Robert E. Mace, Ph.D., P.G., Deputy Executive Administrator, Water Science and Conservation  
Les Trobman, General Counsel  
Jeff Walker, Deputy Executive Administrator, Water Supply and Infrastructure  
John Sutton, Team Lead, Municipal Water Conservation

**FROM:** Cameron Turner, Team Lead, Agricultural Water Conservation

**DATE:** February 11, 2014

**SUBJECT:** Agricultural Water Conservation Fund

## **ACTION REQUESTED**

Briefing and discussion on the purpose, history, use, and projected balance of the Agricultural Water Conservation Fund

## **BACKGROUND**

According to the 2012 State Water Plan, agricultural irrigation conservation strategies are projected to provide 16.7 percent of new water supplies by the year 2060. The Agricultural Water Conservation program at TWDB provides financial assistance to implement these strategies through grants and low-interest loans. The program has evolved over the years through legislative direction. The following is a brief history of the program.

### **Fiscal Years 1985 through 2003**

In 1985 the 69<sup>th</sup> Legislature passed House Bill 2 authorizing the \$10 million Agricultural Trust Fund. The statute declared that one-half of the interest earnings from the Agricultural Trust Fund shall be deposited into the Agricultural Soil and Water Conservation Fund and to promote agricultural soil and water conservation. Other state agencies in addition to TWDB that also regularly received appropriations from the Agricultural Soil and Water Conservation Fund

#### **Our Mission : Board Members**

To provide leadership, planning, financial assistance, information, and education for the conservation and responsible development of water for Texas	:	Carlos Rubinstein, Chairman   Bech Bruun, Member   Mary Ann Williamson, Member
	:	Kevin Patteson, Executive Administrator

during fiscal years 1985 through 2003 included the Texas Agricultural Experiment Station<sup>1</sup>, Texas Cooperative Extension<sup>2</sup>, and the Texas State Soil and Water Conservation Board. Appropriations from the fund to TWDB allowed for capital equipment purchases, primarily of portable flow meter equipment purchases involving local soil and water conservation districts. These soil and water conservation districts typically loaned the equipment to the personnel in the local U.S. Department of Agriculture – Natural Resources Conservation Service<sup>3</sup> field offices for their use in assisting local producers and in compiling the irrigation water use surveys for TWDB. Over time, the capital equipment grant funding was used for the purchase of permanent irrigation flow meters. TWDB purchased the equipment and then provided it to participating groundwater conservation districts through a memorandum of agreement in exchange for data on actual irrigation use.

In 1985 the 69<sup>th</sup> Legislature also appropriated \$5 million to fund a Pilot Loan Program<sup>4</sup>. Funds could be used to loan money to political subdivisions such as groundwater conservation districts who would in turn loan money to producers to upgrade to more efficient irrigation equipment. The Board made \$6.1 million in loans during fiscal years 1985 through 1989. The additional \$1.1 million was made from pre-payments.

In 1989 the 71<sup>st</sup> Legislature created and the voters approved a \$200 million Agricultural Water Conservation Bond Program to expand upon the Pilot Loan Program:

- In 1994 TWDB issued \$14 million in bonds for the purpose of making equipment loans to groundwater conservation districts. TWDB also received grant funding assistance in 1994 from the State Energy Conservation Office in order to reduce the interest rate on loans. (At the time, interest rates were approximately 2 to 3 percent higher than what the Pilot Program had been offering, thus putting the program in a non-competitive position relative to other available funds for the farmers and district.)
- In 1997 the 75<sup>th</sup> Legislature authorized TWDB to use the Agricultural Trust Fund to make loans under the existing program rules at that time; TWDB issued another \$5 million in bonds later that year. Repayments of principal and interest on loans made from the Trust Fund were deposited by TWDB into the Trust Fund. Interest rates were comparable to other Board investments at the time.
- In 2002 TWDB issued \$16.16 million<sup>5</sup> in bonds for specific uses by other state agencies:
  - \$15 million for brush control projects provided to the Texas State Soil and Water Conservation Board

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<sup>1</sup> Texas Agricultural Experiment Station is now Texas A&M AgriLIFE Research.

<sup>2</sup> Texas Cooperative Extension is now Texas A&M AgriLife Extension.

<sup>3</sup> The Natural Resources Conservation Service was formerly the Soil Conservation Service.

<sup>4</sup> The Pilot Program for Low Interest Loans for Agricultural Water Conservation Equipment, Chapter 15, Subchapter I of the Texas Water Code.

<sup>5</sup> The \$160,000 difference between the bonds and the two project costs represents the cost of bond issuance.

- \$1 million for a Pecos River saltcedar eradication project to the Texas Department of Agriculture
  - Agricultural Water Conservation Debt Service was appropriated by later legislatures to repay these Agricultural Water Conservation Bonds issued during the 2002 through 2003 biennium.
- To date, TWDB has issued \$35,160,000 in bonds, leaving \$164,840,000 of remaining bonding authority.

A total of \$60,965,630 in agricultural water conservation loans were made during fiscal years 1985 through 2003. Loans totaling \$35 million as direct result of the bond issuance, plus another \$25,965,630 in loans made from repayment amounts that were deposited to the Agricultural Trust Fund.

### **Fiscal Years 2004 through 2013**

In 2003, through Senate Bill 1053, the 78<sup>th</sup> Legislature abolished both the Agricultural Water Conservation Trust Fund and the Agricultural Soil and Water Conservation Fund effective September 1, 2003, and transferred the assets to the Agricultural Water Conservation Fund.<sup>6</sup> These changes are codified in Texas Water Code §§17.871–17.912 (Attachment A); associated rules are in Texas Administrative Code §§367.1–367.26.

Statute also references the Agricultural Water Conservation Interest and Sinking Fund as a component of the program relating to the issuance of bonds. Money in this Fund may be used for the payment of bonds or, to the extent there are funds in excess of bond payment requirements, for transfers to the fund, or any other account in the funds. Due to recent inactivity in bond-issuance related to this program, there is currently a zero-dollar account balance of the interest and sinking fund, according to the TWDB financial advisor.

The Agricultural Water Conservation Fund is used for grants, loans, long-term demonstration projects, and the administrative costs associated with the Agricultural Water Conservation program, including outreach and education activities (Attachment B).

TWDB efforts to address agricultural water conservation needs began with the Pilot Loan Program in 1985. Since that time, the agency has provided nearly \$75 million in agricultural water conservation loans (Attachment C). Active loan projects currently involve two groundwater conservation districts in the Panhandle and Southern High Plains who serve as the loan recipients and receive near zero-interest loans.<sup>7</sup> The districts that receive the loans, then

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<sup>6</sup> As of August 31, 2003 the Trust Fund balance of \$19,493,152.89 was transferred along with the Agricultural Soil and Water Conservation Fund balance of \$6,813,496.53, for a combined total of \$26,306,649.42 deposited into the Agricultural Water Conservation Fund (these balances came from the 2003 Annual Financial Report).

<sup>7</sup> The TWDB agricultural water conservation loan rates are set at closing based on U.S. Treasury rates.

serve as a bank and make low-interest loans to individual farmers within their jurisdiction. The districts have the authority to add up to two percentage points above the rate received from TWDB on the loans to farmers in order to pay for their administrative costs. The most common type of project funded through TWDB agricultural water conservation loans is upgrades and replacement of center pivot irrigation systems.

Through the changes made to Texas Water Code §§17.871 – 17.912 by Senate Bill 1053 during the 78<sup>th</sup> Legislature, TWDB was given expanded authority to make grants to political subdivisions and state agencies. This grant funding is made available to eligible entities on an annual basis through a competitive request for applications process. Through the annual competitive agricultural water conservation grants program – excluding the two demonstration projects – TWDB has provided over \$7 million in grant funds since 1985 (Attachment D).

In February 2004 TWDB solicited a Request for Applications for Agricultural Water Conservation Demonstration Initiatives Grants. In September 2004 TWDB approved \$1 million per year from the Agricultural Water Conservation Fund for a period of 10 years to provide funding to long-term demonstration initiatives. Through formal solicitation and a competitive review process, two demonstration projects were funded worth a combined total of \$10 million in TWDB funding. The two long-term demonstration projects are now known as the Texas Alliance for Water Conservation project and the Texas Project for Ag Water Efficiency (Attachment E).

The Texas Alliance for Water Conservation is a project in the southern High Plains through Texas Tech University along with their project cooperators including the High Plains Underground Water Conservation District #1, Texas A&M AgriLife, local producers, and private consultants. Texas Alliance for Water Conservation cooperators are demonstrating technologies and practices to save water while maintaining or enhancing their bottom line.

The Texas Project for Ag Water Efficiency is located in the Lower Rio Grande Valley through the Harlingen Irrigation District Cameron County No. 1 with project cooperators including Delta Lake Irrigation District, Texas A&M University–Kingsville, Texas A&M AgriLife, and area producers and private consultants. This project funded the creation of a flow-meter calibration facility and district efficiency improvements. Research funded as a part of the project has also identified low-cost farming practices and technologies that have potential to reduce irrigation water use without sacrificing yields or profits.

The original intent and purpose of the demonstration initiative projects were to “...expedite transfer of available technology to farmers and to develop comprehensive dataset, utilizing large-scale demonstration sites, to assess the cost-effectiveness of selected technologies, evaluate and determine the impact of implementation on crop productivity, impacts on reductions of

*irrigation water use, and impacts on available water supplies.”* As a result of the research funded through these demonstrations, several other smaller grant projects were funded by TWDB that encourage adoption of technologies and practices proven through these research findings. Implementation of the water saving technologies and practices identified through the Board’s two long-term demonstration projects offers cost-effective solutions to potentially meet the future needs of the irrigation water use demand sector in each of their respective regions.

### **Fiscal Years 2014 and 2015**

Through Senate Bill 1 Rider 25, the 83<sup>rd</sup> Texas Legislature appropriated an additional \$3.0 million from General Revenue to be transferred into the Agricultural Water Conservation Fund for the purposes of making grants to groundwater conservation districts requiring metering of agricultural irrigation water use. The Fiscal Year 2014 agricultural water conservation grants request for applications includes \$1.5 million of this funding for these purposes. In the Fiscal Year 2015 request for applications, the full remaining amount of the \$3.0 million will be made available.

Through Senate Bill 1 Rider 22, the 83<sup>rd</sup> Texas Legislature directed TWDB to provide \$3.6 million from the Agricultural Water Conservation Fund for the purpose of making grants to the Texas Alliance for Water Conservation. At the October 17, 2013, Board meeting, \$1.8 million in Fiscal Year 2014 funding was approved for the project. The remaining \$1.8 million for this project will be brought to the Board for approval during Fiscal Year 2015.

### **KEY ISSUES**

The performance measure used by the Agricultural Water Conservation division and reported to the Legislative Budget Board regarding TWDB Agricultural Water Conservation Fund financial assistance programs is water savings. A recent cost-benefit analysis of the reported water savings data from 2004 through 2013 reveals an estimate of \$15.21 per acre foot for agricultural water conservation grant projects to \$127.37 per acre-foot of water saved for agricultural water conservation loan projects (Attachment F). This is within the estimated cost of the irrigation conservation strategies identified in the 2012 State Water Plan and the 2011 regional water plans. It is worth noting that some projects may continue to provide water savings benefits for many years beyond the completion of a project and the reporting requirements under the terms of the contract and may even potentially exist in perpetuity.

Analysis by Finance staff shows that the existing fund is projected to be depleted by 2029 if the current level of grants and operating expenses are continued (Attachment G). Any new loans would affect the intermediate balance depending upon the timing and amount of the loans.

Attachments:

- Attachment A: Texas Water Code §§17.871 – 17.912
- Attachment B: Administration, Education, and Outreach Activities
- Attachment C: Agricultural Water Conservation Loans History
- Attachment D: Agricultural Water Conservation Grants Program
- Attachment E: Agricultural Water Conservation Demonstration Projects
- Attachment F: Water Savings Benefits from the Program
- Attachment G: Agricultural Water Conservation Fund Projected Balance

## ATTACHMENT A

### **Texas Water Code, Sections 17.871-17.912**

#### **SUBCHAPTER J. AGRICULTURAL WATER CONSERVATION BOND PROGRAM**

Sec. 17.871. DEFINITIONS. In this subchapter:

- (1) "Bonds" means Texas agricultural water conservation bonds authorized by Article III, Section 50-d, of the Texas Constitution and issued as bonds, notes, or other evidences of indebtedness in accordance with this subchapter.
- (2) Repealed by Acts 2003, 78th Leg., ch. 200, Sec. 19(w)(2) and Acts 2003, 78th Leg., ch. 352, Sec. 23(2).
- (3) "Eligible lending institution" means a financial institution that makes commercial loans, is either a depository of state funds or an institution of the Farm Credit System headquartered in this state, agrees to participate in a linked deposit program established under Section 17.905 and to provide collateral equal to the amount of linked deposits placed with it, and meets any other requirements established by board rule.
- (4) "Fund" means the agricultural water conservation fund authorized by Section 50-d, Article III, of the Texas Constitution.
- (5) "Person" means an individual, corporation, partnership, association, or other legal entity that is not a political subdivision.
- (6) "Political subdivision" includes a district or authority created under Section 52, Article III, or Section 59, Article XVI, of the Texas Constitution, a municipality, a county, an institution of higher education as defined by Section 61.003, Education Code, any interstate compact commission to which the state is a party, and any nonprofit water supply corporation created and operating under Chapter 67.
- (7) Repealed by Acts 2003, 78th Leg., ch. 200, Sec. 19(w)(2) and Acts 2003, 78th Leg., ch. 352, Sec. 23(2).

Added by Acts 1989, 71st Leg., ch. 1103, Sec. 1, eff. Sept. 1, 1989. Amended by Acts 2001, 77th Leg., ch. 966, Sec. 4.19, eff. Sept. 1, 2001; Acts 2001, 77th Leg., ch. 1234, Sec. 30, eff. Sept. 1, 2001; Acts 2003, 78th Leg., ch. 200, Sec. 19(e), 19(w)(2), eff. Sept. 1, 2003; Acts 2003, 78th Leg., ch. 352, Sec. 5, 23(2), eff. Sept. 1, 2003.

Sec. 17.872. ISSUANCE OF BONDS. The board by resolution may provide for the issuance of negotiable bonds, to be known as Texas agricultural water conservation bonds, in an aggregate principal amount not to exceed \$200 million pursuant to Article III, Section 50-d, of the Texas Constitution.

Added by Acts 1989, 71st Leg., ch. 1103, Sec. 1, eff. Sept. 1, 1989.

Sec. 17.873. CONDITIONS FOR ISSUANCE OF BONDS.

- (a) Bonds may be issued as various series and issues and shall be on a parity.
- (b) Bonds may mature serially or otherwise not later than 50 years after the date on which they are issued.
- (c) The bonds may bear no interest or interest at a rate or rates determined in accordance with law.
- (d) Rates of interest on bonds may be fixed, variable, floating, adjustable, or otherwise, determined by the board or determined pursuant to any contractual arrangements approved by the board.

Added by Acts 1989, 71st Leg., ch. 1103, Sec. 1, eff. Sept. 1, 1989.

Sec. 17.874. PERIODIC DETERMINATION OF INTEREST. A bond resolution or order may provide for payment of interest at any time or the periodic determination of interest rates or interest rate periods.

Added by Acts 1989, 71st Leg., ch. 1103, Sec. 1, eff. Sept. 1, 1989.

Sec. 17.875. PERSONS DESIGNATED TO ACT AS AGENTS OF BOARD.

- (a) A bond resolution or order may delegate authority to one or more officers, employees, or agents designated by the board to act on behalf of the board during the time bonds are outstanding to:
  - (1) fix dates, prices, interest rates, and interest payment periods; and
  - (2) perform other procedures specified in the resolution.
- (b) The person designated by the board may adjust the interest on bonds as necessary to permit the bonds to be sold or resold at par in conjunction with secondary market transactions.

Added by Acts 1989, 71st Leg., ch. 1103, Sec. 1, eff. Sept. 1, 1989.

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Sec. 17.876. SECURITY QUALIFICATIONS. The board may take any action necessary to qualify the bonds for offer and sale under the securities laws and regulations of the United States, this state, and other states.

Added by Acts 1989, 71st Leg., ch. 1103, Sec. 1, eff. Sept. 1, 1989.

Sec. 17.877. INVESTMENT SECURITIES. The bonds and any interest coupons are investment securities under Chapter 8, Business & Commerce Code, and may be issued registrable as to principal or as to both principal and interest or may be made redeemable before maturity at the option of the board or may contain a mandatory redemption provision.

Added by Acts 1989, 71st Leg., ch. 1103, Sec. 1, eff. Sept. 1, 1989.

Sec. 17.878. FORM OF BONDS.

(a) The bonds may be issued in the form, denominations, and manner and under the terms, conditions, and details as provided by the board in the resolution or order authorizing their issuance.

(b) The bonds shall be signed and executed as provided by the board's resolution or order authorizing the issuance of the bonds.

Added by Acts 1989, 71st Leg., ch. 1103, Sec. 1, eff. Sept. 1, 1989.

Sec. 17.879. FUNDS.

(a) The bond proceeds shall be deposited in the state treasury to the credit of the fund.

(b) In the resolution or order authorizing issuance of bonds, the board may make additional covenants with respect to the bonds and may provide for the flow of funds and the establishment, maintenance, and investment of funds.

(c) By rule or in the resolution or order authorizing issuance of bonds or other resolution or order of the board, the board may establish an interest and sinking fund and may establish accounts in the funds, including an interest and sinking account, and may transfer money among the funds and accounts.

(d) The board may invest and reinvest money in the fund, the interest and sinking fund, and any account therein in any obligations or securities as provided by bond resolutions, orders of the board, and Section 404.024, Government Code.

Added by Acts 1989, 71st Leg., ch. 1103, Sec. 1, eff. Sept. 1, 1989. Amended by Acts 2003, 78th Leg., ch. 200, Sec. 19(f), eff. Sept. 1, 2003; Acts 2003, 78th Leg., ch. 352, Sec. 6, eff. Sept. 1, 2003.

Sec. 17.880. SALE OF SECURITIES.

(a) Loans, bonds of political subdivisions, and other obligations owned by the state and deposited in the fund or in the interest and sinking fund are considered to be securities under this subchapter.

(b) The board may sell securities owned in the interest and sinking fund or in any account in the fund at the governing market price.

Added by Acts 1989, 71st Leg., ch. 1103, Sec. 1, eff. Sept. 1, 1989. Amended by Acts 2003, 78th Leg., ch. 200, Sec. 19(g), eff. Sept. 1, 2003; Acts 2003, 78th Leg., ch. 352, Sec. 7, eff. Sept. 1, 2003.

Sec. 17.881. SALE OF OBLIGATIONS TO TEXAS WATER RESOURCES FINANCE AUTHORITY.

(a) Pursuant to Section 17.0871 and notwithstanding any other provision of this chapter, the board may sell to the Texas Water Resources Finance Authority any loans or bonds of borrower districts or lender districts purchased with money in the fund and may apply the proceeds of the sale in the manner provided by Section 17.0871.

(b) The board shall sell the loans or bonds of political subdivisions at the price and under the terms that it determines to be reasonable.

Added by Acts 1989, 71st Leg., ch. 1103, Sec. 1, eff. Sept. 1, 1989. Amended by Acts 2003, 78th Leg., ch. 200, Sec. 19(h), eff. Sept. 1, 2003; Acts 2003, 78th Leg., ch. 352, Sec. 8, eff. Sept. 1, 2003.



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### Sec. 17.882. RESOLUTIONS, ORDERS, ETC.

- (a) The orders or resolutions of the board that provide for issuing bonds may include other provisions and covenants that the board determines necessary.
- (b) The board may adopt and have executed any other proceedings, agreements, or trust agreements or instruments necessary and convenient in the issuance of bonds.

Added by Acts 1989, 71st Leg., ch. 1103, Sec. 1, eff. Sept. 1, 1989.

Sec. 17.883. BOND REVIEW BOARD. Bonds may not be issued under this subchapter unless the issuance of the bonds has been reviewed and approved by the bond review board. Prior to issuance of bonds, the board shall estimate demand for conservation programs or projects based on a survey of eligible participants in the program. A summary of this information shall be furnished to the bond review board.

Added by Acts 1989, 71st Leg., ch. 1103, Sec. 1, eff. Sept. 1, 1989. Amended by Acts 2003, 78th Leg., ch. 200, Sec. 19(i), eff. Sept. 1, 2003; Acts 2003, 78th Leg., ch. 352, Sec. 9, eff. Sept. 1, 2003.

Sec. 17.884. APPROVAL OF ATTORNEY GENERAL. The proceedings relating to the bonds issued under this subchapter are subject to review and approval by the attorney general in the same manner and with the same effects as provided by Chapter 1371, Government Code.

Added by Acts 1989, 71st Leg., ch. 1103, Sec. 1, eff. Sept. 1, 1989. Amended by Acts 2001, 77th Leg., ch. 1420, Sec. 8.410, eff. Sept. 1, 2001.

Sec. 17.885. BONDS INCONTESTABLE. After approval of the proceedings relating to bonds issued under this subchapter by the attorney general, registration of the proceedings by the comptroller, and delivery to the purchasers, the bonds are incontestable and constitute general obligations of the state.

Added by Acts 1989, 71st Leg., ch. 1103, Sec. 1, eff. Sept. 1, 1989.

### Sec. 17.886. PAYMENT AND TRANSFERS BY COMPTROLLER.

- (a) The comptroller shall pay the principal of the bonds as they mature and the interest on the bonds as it becomes due.
- (b) If the money and securities in the interest and sinking fund are insufficient to pay the interest that is due and the principal maturing on the bonds during the fiscal year, the comptroller shall transfer out of the first money coming into the treasury, not otherwise appropriated by the constitution, the amount required to pay principal of and interest on the bonds during the fiscal year.
- (c) The comptroller shall make the transfers required by the board's bond resolution or order and this subchapter.

Added by Acts 1989, 71st Leg., ch. 1103, Sec. 1, eff. Sept. 1, 1989. Amended by Acts 1997, 75th Leg., ch. 1423, Sec. 20.07, eff. Sept. 1, 1997.

### Sec. 17.887. REFUNDING BONDS.

- (a) The board may provide by resolution for the issuance of refunding bonds to refund outstanding bonds issued under this chapter and accrued interest on those bonds.
- (b) The board may sell the refunding bonds and use the proceeds to retire the outstanding bonds issued under this chapter, exchange the refunding bonds for the outstanding bonds, or refund the bonds in the manner provided by any other applicable statute, including Chapter 1207, Government Code.

Added by Acts 1989, 71st Leg., ch. 1103, Sec. 1, eff. Sept. 1, 1989. Amended by Acts 2001, 77th Leg., ch. 1420, Sec. 8.411, eff. Sept. 1, 2001.

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Sec. 17.888. MUTILATED, LOST, OR DESTROYED BONDS. The board may provide for the replacement of mutilated, lost, or destroyed bonds.

Added by Acts 1989, 71st Leg., ch. 1103, Sec. 1, eff. Sept. 1, 1989.

Sec. 17.889. ELIGIBLE SECURITY. The bonds are eligible to secure deposits of public funds of the state and cities, counties, school districts, and other political subdivisions of the state. The bonds are lawful and sufficient security for deposits to the extent of their face value.

Added by Acts 1989, 71st Leg., ch. 1103, Sec. 1, eff. Sept. 1, 1989.

Sec. 17.890. LEGAL INVESTMENTS. The bonds are legal and authorized investments for:

- (1) banks;
- (2) savings banks;
- (3) trust companies;
- (4) savings and loan associations;
- (5) insurance companies;
- (6) fiduciaries;
- (7) trustees;
- (8) guardians; and
- (9) sinking funds of cities, counties, school districts, and other political subdivisions of the state and other public funds of the state and its agencies, including the permanent school fund.

Added by Acts 1989, 71st Leg., ch. 1103, Sec. 1, eff. Sept. 1, 1989.

Sec. 17.891. TAX EXEMPT BONDS. Since the board is performing an essential governmental function in the exercise of the powers conferred on it by this chapter, the bonds issued under this subchapter and the interest and income from the bonds, including any profit made on the sale of bonds, and all fees, charges, gifts, grants, revenues, receipts, and other money received or pledged to pay or secure the payment of the bonds are free from taxation and assessments of every kind by this state and any city, county, district, authority, or other political subdivision of this state.

Added by Acts 1989, 71st Leg., ch. 1103, Sec. 1, eff. Sept. 1, 1989.

Sec. 17.892. ENFORCEMENT BY MANDAMUS. Payment of the bonds and performance of official duties prescribed by Article III, Section 50-d, of the Texas Constitution and this subchapter may be enforced in a court of competent jurisdiction by mandamus or other appropriate proceedings.

Added by Acts 1989, 71st Leg., ch. 1103, Sec. 1, eff. Sept. 1, 1989.

Sec. 17.893. SUBCHAPTER CUMULATIVE OF OTHER LAWS.

- (a) This subchapter is cumulative of other laws on the subject, and the board may use provisions of other applicable laws in the issuance of its bonds and other obligations, but this subchapter is wholly sufficient authority for the issuance of bonds and the performance of all other acts and procedures authorized by this subchapter.
- (b) In addition to other authority granted by this subchapter, the board may exercise the powers granted to the governing body of an issuer with regard to issuance of obligations under Chapter 1371, Government Code.

Added by Acts 1989, 71st Leg., ch. 1103, Sec. 1, eff. Sept. 1, 1989. Amended by Acts 2001, 77th Leg., ch. 1420, Sec. 8.412, eff. Sept. 1, 2001.

Sec. 17.894. BOND ENHANCEMENT AGREEMENTS; PAYMENT OF EXPENSES.

- (a) The board at any time and from time to time may enter into one or more bond enhancement agreements that the board determines to be necessary or appropriate to place the obligation of the board, as represented by the bonds, in whole or in part,

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on the interest rate, currency, cash flow, or other basis desired by the board. A bond enhancement agreement is an agreement for professional services and shall contain the terms and conditions and be for the period that the board approves.

(b) The fees and expenses of the board in connection with the issuance of the bonds and the providing of financial assistance to political subdivisions may be paid from money in the fund, provided that any payments due from the board under a bond enhancement agreement, other than fees and expenses, that relate to the payment of debt service on the bonds constitute payments of principal of and interest on the bonds.

(c) Bond enhancement agreements may include, on terms and conditions approved by the board, interest rate swap agreements; currency swap agreements; forward payment conversion agreements; agreements providing for payments based on levels of or changes in interest rates or currency exchange rates; agreements to exchange cash flows or a series of payments; agreements, including options, puts, or calls, to hedge payment, currency, rate, spread, or other exposure; or other agreements that further enhance the marketability, security, or creditworthiness of water financial assistance bonds.

Added by Acts 1989, 71st Leg., ch. 1103, Sec. 1, eff. Sept. 1, 1989. Amended by Acts 2001, 77th Leg., ch. 1234, Sec. 31, eff. Sept. 1, 2001; Acts 2003, 78th Leg., ch. 200, Sec. 19(j), eff. Sept. 1, 2003; Acts 2003, 78th Leg., ch. 352, Sec. 10, eff. Sept. 1, 2003.

Sec. 17.895. SOURCES OF ASSETS. The fund is composed of:

- (1) money and assets, including bond proceeds, attributable to the bonds;
- (2) investment income earned on money on deposit in the fund and depository interest earned on money on deposit in the state treasury;
- (3) money appropriated by the legislature;
- (4) repayments of principal and interest on loans made under this subchapter;
- (5) administrative fees charged by the board under the bond program; and
- (6) any other funds, regardless of their source, that the board directs be deposited to the credit of the fund.

Added by Acts 1989, 71st Leg., ch. 1103, Sec. 1, eff. Sept. 1, 1989. Amended by Acts 1997, 75th Leg., ch. 1010, Sec. 4.09, eff. Sept. 1, 1997; Acts 1999, 76th Leg., ch. 456, Sec. 7, eff. June 18, 1999; Acts 1999, 76th Leg., ch. 979, Sec. 9, eff. June 18, 1999; Acts 2001, 77th Leg., ch. 966, Sec. 4.20, eff. Sept. 1, 2001; Acts 2003, 78th Leg., ch. 200, Sec. 19(k), eff. Sept. 1, 2003; Acts 2003, 78th Leg., ch. 352, Sec. 11, eff. Sept. 1, 2003.

Sec. 17.896. REPAYMENT PROCEEDS. The board shall designate a transfer of repayment of principal and interest on a loan made under this subchapter to the fund, the interest and sinking fund, or any account in the funds.

Added by Acts 1989, 71st Leg., ch. 1103, Sec. 1, eff. Sept. 1, 1989. Amended by Acts 2003, 78th Leg., ch. 200, Sec. 19(l), eff. Sept. 1, 2003; Acts 2003, 78th Leg., ch. 352, Sec. 12, eff. Sept. 1, 2003.

Sec. 17.897. CONSERVATION PROGRAM.

(a) A conservation program is:

- (1) an agricultural water conservation technical assistance program, including a program for an on-farm soil and water conservation plan developed jointly by a landowner, an operator, and a local soil and water conservation district as provided by Subchapter H, Chapter 201, Agriculture Code;
- (2) a research, demonstration, technology transfer, or educational program relating to agricultural water use and conservation;
- (3) a precipitation enhancement program in an area of the state where the program, in the board's judgment, would be most effective; and
- (4) any other agricultural water conservation program defined by board rule.

(b) The costs of a conservation program eligible for financial assistance under Section 17.899 are the costs of the capital equipment, materials, labor, preparation, installation, or administration directly associated with implementing and completing the program.

Added by Acts 1989, 71st Leg., ch. 1103, Sec. 1, eff. Sept. 1, 1989. Amended by Acts 2003, 78th Leg., ch. 200, Sec. 19(m), eff. Sept. 1, 2003; Acts 2003, 78th Leg., ch. 352, Sec. 13, eff. Sept. 1, 2003.

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### Sec. 17.898. CONSERVATION PROJECT.

- (a) A conservation project is a project that:
- (1) improves water use efficiency of water delivery and application on existing irrigation systems;
  - (2) prepares irrigated land for conversion to dryland conditions;
  - (3) prepares dryland for more efficient use of natural precipitation;
  - (4) purchases and installs on public or private property devices designed to indicate the amount of water withdrawn for irrigation purposes;
  - (5) prepares and maintains land to be used for brush control activities in areas of the state where those activities in the board's judgment would be most effective, including activities conducted under Chapter 203, Agriculture Code; or
  - (6) implements any other agricultural water conservation project defined by board rule.
- (b) The costs of a conservation project eligible for financial assistance under Section 17.899 are the costs of the capital equipment, materials, labor, preparation, installation, or administration directly associated with implementing and completing the project.

Added by Acts 1989, 71st Leg., ch. 1103, Sec. 1, eff. Sept. 1, 1989. Amended by Acts 2003, 78th Leg., ch. 200, Sec. 19(n), eff. Sept. 1, 2003; Acts 2003, 78th Leg., ch. 352, Sec. 14, eff. Sept. 1, 2003.

### Sec. 17.899. ELIGIBLE FUND USES.

- (a) Money in the fund, excluding money in the interest and sinking fund, may be used by the board to:
- (1) provide a grant to a state agency to fund a conservation program or conservation project, including a conservation program that provides funding to a political subdivision or person for a conservation project;
  - (2) provide a grant or loan to a political subdivision for a conservation program or conservation project;
  - (3) provide a linked deposit to an eligible financial institution for a loan to a person for a conservation project;
  - (4) pay for a board conservation program;
  - (5) make a transfer to the interest and sinking fund;
  - (6) pay the costs of a bond issuance; and
  - (7) pay for a board expense in administering the agricultural water conservation program under this subchapter.
- (b) Money in the interest and sinking fund may be used for the payment of bonds or, to the extent there are funds in excess of bond payment requirements, for transfers to the fund, or any other account in the funds.

Added by Acts 1989, 71st Leg., ch. 1103, Sec. 1, eff. Sept. 1, 1989. Amended by Acts 1993, 73rd Leg., ch. 477, Sec. 15, eff. Aug. 30, 1993; Acts 2003, 78th Leg., ch. 200, Sec. 19(o), eff. Sept. 1, 2003; Acts 2003, 78th Leg., ch. 352, Sec. 15, eff. Sept. 1, 2003.

### Sec. 17.900. GRANT TO STATE AGENCY.

- (a) A state agency seeking a grant for a conservation program or conservation project must file an application with the board.
- (b) In reviewing an application for a grant, the board shall consider:
- (1) the commitment of the state agency to water conservation; and
  - (2) the benefits that will be gained by making the grant.
- (c) To approve the grant, the board must find that:
- (1) the grant funds will supplement rather than replace money of the state agency;
  - (2) the public interest is served by providing the grant; and
  - (3) the grant will further water conservation in the state.
- (d) If a state agency is applying for funds that have been provided by legislative appropriation for such state agency, the board shall review the application according to the terms of the legislative appropriation. To approve such grant, the board shall make the determination required by the legislative language.
- (e) The board may make money available to a state agency in any manner that it considers feasible, including a grant agreement with the state agency.

Added by Acts 1989, 71st Leg., ch. 1103, Sec. 1, eff. Sept. 1, 1989. Amended by Acts 2003, 78th Leg., ch. 200, Sec. 19(p), eff. Sept. 1, 2003; Acts 2003, 78th Leg., ch. 352, Sec. 16, eff. Sept. 1, 2003.

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Sec. 17.901. GRANT OR LOAN TO POLITICAL SUBDIVISION. The board may make a grant or loan to a political subdivision for a conservation program or conservation project. A political subdivision seeking a grant or loan must file an application with the board.

Added by Acts 1989, 71st Leg., ch. 1103, Sec. 1, eff. Sept. 1, 1989. Amended by Acts 2003, 78th Leg., ch. 200, Sec. 19(q), eff. Sept. 1, 2003; Acts 2003, 78th Leg., ch. 352, Sec. 17, eff. Sept. 1, 2003.

Sec. 17.902. REVIEW OF APPLICATION FOR AND APPROVAL OF GRANT.

- (a) In reviewing an application by a political subdivision for a grant, the board shall consider:
  - (1) the degree to which the political subdivision has used other available resources to finance the use for which the application is being made;
  - (2) the willingness and ability of the political subdivision to raise revenue;
  - (3) the commitment of the political subdivision to water conservation; and
  - (4) the benefits that will be gained by making the grant.
- (b) To approve a grant to a political subdivision, the board must find that:
  - (1) the grant funds will supplement rather than replace money of the political subdivision;
  - (2) the public interest is served by providing the grant; and
  - (3) the grant will further water conservation in the state.

Added by Acts 1989, 71st Leg., ch. 1103, Sec. 1, eff. Sept. 1, 1989. Amended by Acts 2003, 78th Leg., ch. 200, Sec. 19(r), eff. Sept. 1, 2003; Acts 2003, 78th Leg., ch. 352, Sec. 18, eff. Sept. 1, 2003.

Sec. 17.9021. APPLICATION FOR AND APPROVAL OF LOAN.

- (a) In reviewing an application by a political subdivision for a loan, the board shall consider the ability of the political subdivision to repay the loan and whether the loan will further water conservation in this state.
- (b) To approve a loan to a political subdivision, the board must determine that:
  - (1) the public interest is served by providing the loan;
  - (2) the political subdivision has the ability to repay the loan; and
  - (3) the loan will further water conservation in the state.
- (c) The board by rule shall establish the rate of interest it charges for a loan to a political subdivision.

Added by Acts 2003, 78th Leg., ch. 200, Sec. 19(s), eff. Sept. 1, 2003; Acts 2003, 78th Leg., ch. 352, Sec. 19, eff. Sept. 1, 2003.

Sec. 17.9022. FINANCING OF GRANT OR LOAN FOR POLITICAL SUBDIVISION; DEFAULT; VENUE. The board may make a loan or grant available to a political subdivision in any manner the board considers economically feasible, including purchase of bonds or securities of the political subdivision or execution of a loan or grant agreement with the political subdivision. The board may not purchase bonds or securities that have not been approved by the attorney general and registered by the comptroller.

Added by Acts 2003, 78th Leg., ch. 200, Sec. 19(s), eff. Sept. 1, 2003; Acts 2003, 78th Leg., ch. 352, Sec. 19, eff. Sept. 1, 2003.

Amended by:

Acts 2011, 82nd Leg., R.S., Ch. 1233, Sec. 13, eff. September 1, 2011.

Sec. 17.903. CONTRACT AUTHORITY.

- (a) A political subdivision may borrow money for the purposes of this subchapter and may adopt necessary rules to carry out this subchapter.
- (b) The board shall have the power to enter into any contracts to carry out the provisions of this subchapter.

Added by Acts 1989, 71st Leg., ch. 1103, Sec. 1, eff. Sept. 1, 1989. Amended by Acts 2001, 77th Leg., ch. 1234, Sec. 32, eff. Sept. 1, 2001; Acts 2003, 78th Leg., ch. 200, Sec. 19(t), eff. Sept. 1, 2003; Acts 2003, 78th Leg., ch. 352, Sec. 20, eff. Sept. 1, 2003.

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Sec. 17.904. LINKED DEPOSIT. A linked deposit is a deposit governed by a written deposit agreement between the board and an eligible lending institution that provides that:

- (1) the eligible lending institution pay interest on the deposit at a rate determined by the board;
- (2) the state not withdraw any part of the deposit before the expiration of a period set by a written advance notice of the intention to withdraw; and
- (3) the eligible lending institution agree to lend the value of the deposit to a person at a maximum rate that is the rate paid by the eligible lending institution to the board plus a maximum of four percent.

Added by Acts 2003, 78th Leg., ch. 200, Sec. 19(u), eff. Sept. 1, 2003; Acts 2003, 78th Leg., ch. 352, Sec. 21, eff. Sept. 1, 2003.

Sec. 17.905. LINKED DEPOSIT PROGRAM.

- (a) The board by rule may establish an agricultural water conservation linked deposit program in accordance with this subchapter.
- (b) An eligible lending institution may participate in the program established under this section as provided by this subchapter.

Added by Acts 2003, 78th Leg., ch. 200, Sec. 19(u), eff. Sept. 1, 2003; Acts 2003, 78th Leg., ch. 352, Sec. 21, eff. Sept. 1, 2003.

Sec. 17.906. APPLICATION BY ELIGIBLE LENDING INSTITUTIONS TO PARTICIPATE IN LINKED DEPOSIT PROGRAM. To participate in the agricultural water conservation linked deposit program, an eligible lending institution must:

- (1) solicit loan applications, which must contain a description of an agricultural water conservation project;
- (2) review applications to determine if applicants are eligible and creditworthy; and
- (3) submit the applications of eligible and creditworthy applicants to the executive administrator with a certification:
  - (A) of the interest rate applicable to each applicant by the eligible lending institution; and
  - (B) of the soil and water conservation district in which an applicant is located by a director of the district that states that:
    - (i) the applicant of the proposed project has a soil and water conservation plan approved by the district; and
    - (ii) the project furthers or implements the plan.

Added by Acts 2003, 78th Leg., ch. 200, Sec. 19(u), eff. Sept. 1, 2003; Acts 2003, 78th Leg., ch. 352, Sec. 21, eff. Sept. 1, 2003.

Sec. 17.907. APPROVAL OR REJECTION OF APPLICATION. The board may approve or reject an application of an eligible lending institution to participate in the program. The board may delegate its authority to approve or reject applications to the executive administrator.

Added by Acts 2003, 78th Leg., ch. 200, Sec. 19(u), eff. Sept. 1, 2003; Acts 2003, 78th Leg., ch. 352, Sec. 21, eff. Sept. 1, 2003.

Sec. 17.908. DEPOSIT AGREEMENT. If the board approves an application of an eligible lending institution, the board and the eligible lending institution shall enter into a written deposit agreement. The agreement shall contain the conditions on which the linked deposit is made. On execution of the agreement, the board shall place a linked deposit from the fund with the eligible lending institution in accordance with the agreement. A delay in payment or a default on a loan by an applicant does not affect the validity of the deposit agreement.

Added by Acts 2003, 78th Leg., ch. 200, Sec. 19(u), eff. Sept. 1, 2003; Acts 2003, 78th Leg., ch. 352, Sec. 21, eff. Sept. 1, 2003.

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### Sec. 17.909. COMPLIANCE.

- (a) On accepting a linked deposit, an eligible lending institution must lend money to an approved applicant in accordance with the deposit agreement and this subchapter. The eligible lending institution shall forward a compliance report to the board in accordance with board rules. The board shall adopt rules regarding the compliance report.
- (b) The board shall monitor compliance with this subchapter and inform the comptroller of noncompliance on the part of an eligible lending institution.

Added by Acts 2003, 78th Leg., ch. 200, Sec. 19(u), eff. Sept. 1, 2003; Acts 2003, 78th Leg., ch. 352, Sec. 21, eff. Sept. 1, 2003.

Sec. 17.910. STATE LIABILITY PROHIBITED. The state is not liable to an eligible lending institution for payment of the principal, interest, or any late charges on a loan made to an approved applicant. A linked deposit is not an extension of the state's credit within the meaning of any state constitutional prohibition.

Added by Acts 2003, 78th Leg., ch. 200, Sec. 19(u), eff. Sept. 1, 2003; Acts 2003, 78th Leg., ch. 352, Sec. 21, eff. Sept. 1, 2003.

### Sec. 17.911. LIMITATIONS ON PROGRAM.

- (a) The maximum amount of a loan under the linked deposit program is \$250,000.
- (b) The board may withdraw linked deposits from an eligible lending institution if the institution ceases to be either a state depository or a Farm Credit System institution headquartered in this state.

Added by Acts 2003, 78th Leg., ch. 200, Sec. 19(u), eff. Sept. 1, 2003; Acts 2003, 78th Leg., ch. 352, Sec. 21, eff. Sept. 1, 2003.

Sec. 17.912. RULES. The board shall adopt rules necessary to carry out this subchapter. Applications shall be in the form and manner as provided by board rules.

Added by Acts 2003, 78th Leg., ch. 200, Sec. 19(u), eff. Sept. 1, 2003; Acts 2003, 78th Leg., ch. 352, Sec. 21, eff. Sept. 1, 2003.

*(downloaded from <http://www.statutes.legis.state.tx.us/> on November 26, 2012)*

## ATTACHMENT B

### Administration, Education, and Outreach Activities

Administrative costs associated with the Agricultural Water Conservation program are shown in the table below containing the budget for the current biennium. The budgeted amounts include 5.0 full-time equivalents that are split amongst seven employees, including a portion of the vacant Conservation Division Director position. The three full-time Agricultural Conservation team members are paid 100 percent from the Agricultural Water Conservation Fund.

<b>Budget Category</b>	<b>Fiscal Year 2014 Budget</b>	<b>Fiscal Year 2015 Budget</b>
Salaries	281,495.66	281,495.66
Benefit Replacement Pay	513.50	513.50
Salary Lapse	7,092.34	7,092.34
In State Travel	5,000.00	5,000.00
Out of State Travel	2,500.00	2,500.00
Training	3,250.00	3,250.00
Communications	2,550.00	2,550.00
Materials & Supplies	2,000.00	2,000.00
Computer Consumables	250.00	250.00
Rentals & Leases	3,000.00	3,000.00
Reproduction & Printing	4,500.00	4,500.00
Other Operating	21,581.00	21,581.00
Computer Capital	2,500.00	2,500.00
Regular Ag Grants	600,000.00	600,000.00
<b>Typical Ag Program Annual Budget</b>	<b>936,232.50</b>	<b>936,232.50</b>
SB 1, Rider 22	1,800,000.00	1,800,000.00
SB 1, Rider 25 (Additional Appropriations from General Revenue)	1,500,000.00	1,500,000.00
<b>Total Ag Program Budget</b>	<b>4,236,232.50</b>	<b>4,236,232.50</b>

The Agricultural Water Conservation team members provide technical assistance and educational outreach upon request. Team member activities can include those briefly described below.

- Administration of grant contracts, monitoring contractor performance, attending project field days, processing payments, and reviewing deliverables.
- Compiling the annual irrigation water use estimates on a county-by-county, crop-by-crop basis, an on-going process that overlaps from year-to-year (that is, 2012 estimates are being finalized while work on 2013 estimates is already beginning). The estimates are used in the regional water planning process in developing the draft irrigation demand projections. These numbers are also used in refining the groundwater availability models. The annual irrigation estimates process is an



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effort that involves coordination with other parts of the agency as well as several outside entities, primarily:

- U.S. Department of Agriculture – Farm Service Agency for irrigated crop acres,
- Texas Commission on Environmental Quality for surface water diversions, and
- Groundwater conservation districts for review and comments.
- Collection and analysis of reported data from program participants in the voluntary irrigation metering program
- Development of educational programs, activities, and program information brochures and publications
- Outreach via interactive webinar and webcast presentations on TWDB agricultural programs
- Staffing of exhibits, speaking engagements, and other educational outreach activities
- Special tasks and reports as assigned by Division Director and/or Deputy Executive Administrator

The agricultural water conservation team provides outreach and education at various events across the state. The following table of past and anticipated Fiscal Year 2014 activities is an example of the types of events where Agricultural Water Conservation team members attend, have an exhibit booth, and /or provide a formal presentation:

<b>Fiscal Year 2014 Events</b>	<b>Location</b>	<b>Date</b>
Texas Project for Ag Water Efficiency, Surge Valve Co-op Training	Harlingen/Mercedes	9/17/2013
Trinity River Land and Water Summit	Athens	10/2/2013
Texas AgXchange Farm & Ranch Show	Robstown	10/2/2013
South Texas Farm & Ranch Show	Victoria	10/23/2013
Texas State Soil and Water Conservation Board Annual Meeting	Fort Worth	10/29/2013
Irrigation Association Show	Austin	11/8/2013
San Antonio International Farm & Ranch Show	San Antonio	11/9/2013
Bell County Water Symposium	Belton	11/15/2013
Amarillo Farm and Ranch Show and Texas Commodity Symposium	Amarillo	12/4/2013
High Plains Irrigation Conference & Trade Show	Amarillo	1/16/2014
Texas Farm Bureau Leadership Conference	Frisco	1/27/2014
Blackland Income Growth and Mid-Tex Farm & Ranch Show	Waco	2/4/2014
East Texas Turfgrass Conference	Overton	2/6/2014
Four County Irrigation Seminar	El Campo	2/13/2014
Agricultural Water Conservation Grants Webinar	Austin	2/18/2014
Subtropical Agriculture and Environments Society Annual Meeting	Weslaco	2/21/2014
Wintergarden Area Irrigation Seminar	Uvalde/Hondo	TBD
Texas Farm Bureau Summer Commodity Conference	San Marcos	6/26/2014
Ag Teachers Conference	Abilene	7/30/2014
Texas Groundwater Summit	San Marcos	8/27/2014

## ATTACHMENT C

**Agricultural Water Conservation Loans History**

GCD Groundwater Conservation District  
 ID Irrigation District  
 SWCD Soil and Water Conservation District  
 UWCD Underground Water Conservation District  
 WID Water Improvement District  
 WCID Water Control and Improvement District

Recipient	Commitment Date	Commitment Amount	Outstanding Balance
Texas Department of Agriculture	8/21/2002	\$ 1,000,000	\$ -
Texas State Soil and Water Conservation Board	8/21/2002	\$ 15,000,000	\$ -
<b>TWDB Ag Loans paid off through direct appropriations</b>		<b>\$ 16,000,000</b>	
High Plains UWCD #1	5/15/1986	\$ 233,006	\$ -
Austin County SWCD	10/16/1986	\$ 23,802	\$ -
Brazos-Robertson SWCD	10/16/1986	\$ 92,884	\$ -
High Plains UWCD #1	10/16/1986	\$ 1,000,000	\$ -
High Plains UWCD #1	9/17/1987	\$ 1,000,000	\$ -
Comal-Guadalupe SWCD	8/26/1988	\$ 65,000	\$ -
High Plains UWCD #1	8/31/1988	\$ 1,000,000	\$ -
High Plains UWCD #1	2/10/1989	\$ 1,000,000	\$ -
Brazos County SWCD #450	2/16/1989	\$ 300,000	\$ -
Starr County SWCD	5/11/1989	\$ 200,000	\$ -
High Plains UWCD #1	8/8/1989	\$ 1,000,000	\$ -
High Plains UWCD #1	8/28/1989	\$ 1,000,000	\$ -
High Plains UWCD #1	1/15/1992	\$ 200,000	\$ -
Sandy Land UWCD	2/13/1992	\$ 499,520	\$ -
Panhandle GCD	3/12/1992	\$ 146,671	\$ -
High Plains UWCD #1	10/22/1992	\$ 470,686	\$ -
Panhandle GCD	10/22/1992	\$ 504,055	\$ -
Panhandle GCD	11/18/1992	\$ 70,000	\$ -
Sandy Land UWCD	1/21/1993	\$ 763,170	\$ -
Evergreen UWCD	2/25/1993	\$ 450,000	\$ -
Evergreen UWCD	1/20/1994	\$ 500,000	\$ -
High Plains UWCD #1	1/20/1994	\$ 2,000,000	\$ -
High Plains UWCD #1	1/20/1994	\$ 1,700,000	\$ -
Panhandle GCD	1/20/1994	\$ 650,000	\$ -
Sandy Land UWCD	1/20/1994	\$ 800,000	\$ -
South Plains UWCD	1/20/1994	\$ 366,768	\$ -
Sandy Land UWCD	3/17/1994	\$ 750,000	\$ -
Live Oak UWCD	7/21/1994	\$ 35,000	\$ -
Evergreen UWCD	9/15/1994	\$ 600,000	\$ -
High Plains UWCD #1	9/15/1994	\$ 4,000,000	\$ -

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Panhandle GCD	9/15/1994	\$	500,000	\$	-
Sandy Land UWCD	9/15/1994	\$	500,000	\$	-
South Plains UWCD	9/15/1994	\$	1,000,000	\$	-
Medina County GCD	11/17/1994	\$	300,000	\$	-
South Plains UWCD	2/16/1995	\$	161,000	\$	-
Medina County GCD	3/23/1995	\$	10,000	\$	-
Sandy Land UWCD	3/23/1995	\$	140,000	\$	-
Hidalgo County ID #19	7/20/1995	\$	300,000	\$	-
Upper Pecos SWCD #213	7/20/1995	\$	449,068	\$	-
Sandy Land UWCD	11/16/1995	\$	650,000	\$	-
South Plains UWCD	11/16/1995	\$	750,000	\$	-
Evergreen UWCD	5/16/1996	\$	165,000	\$	-
Live Oak UWCD	8/15/1996	\$	40,000	\$	-
Evergreen UWCD	11/20/1996	\$	500,000	\$	-
High Plains UWCD #1	11/20/1996	\$	2,000,000	\$	-
Panhandle GCD	11/20/1996	\$	300,000	\$	-
Sandy Land UWCD	11/20/1996	\$	500,000	\$	-
South Plains UWCD	11/20/1996	\$	750,000	\$	-
Ward County WID #3	11/20/1996	\$	250,000	\$	-
South Plains UWCD	2/20/1997	\$	350,000	\$	-
Sandy Land UWCD	3/20/1997	\$	400,000	\$	-
Panhandle GCD	6/19/1997	\$	185,000	\$	-
South Plains UWCD	11/20/1997	\$	165,000	\$	-
Tom Green County WCID #1	11/20/1997	\$	25,000	\$	-
South Plains UWCD	11/20/1997	\$	835,000	\$	-
Tom Green County WCID #1	11/20/1997	\$	125,000	\$	-
Panhandle GCD	1/15/1998	\$	124,000	\$	-
Sandy Land UWCD	1/15/1998	\$	83,000	\$	-
Panhandle GCD	1/15/1998	\$	626,000	\$	-
Sandy Land UWCD	1/15/1998	\$	417,000	\$	-
Evergreen UWCD	2/19/1998	\$	83,000	\$	-
High Plains UWCD #1	2/19/1998	\$	320,000	\$	-
Evergreen UWCD	2/19/1998	\$	417,000	\$	-
High Plains UWCD #1	2/19/1998	\$	1,625,000	\$	-
Edwards Aquifer Authority	9/17/1998	\$	750,000	\$	-
Edwards Aquifer Authority	9/17/1998	\$	2,250,000	\$	-
South Plains UWCD	12/17/1998	\$	187,500	\$	-
South Plains UWCD	12/17/1998	\$	562,500	\$	-
Sandy Land UWCD	1/21/1999	\$	125,000	\$	-
Sandy Land UWCD	1/21/1999	\$	375,000	\$	-
South Plains UWCD	11/17/1999	\$	500,000	\$	-
Sandy Land UWCD	12/15/1999	\$	500,000	\$	-
Panhandle GCD	4/19/2000	\$	300,000	\$	-

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Sandy Land UWCD	1/17/2001	\$	500,000	\$	-
Edwards Aquifer Authority	5/16/2001	\$	500,000	\$	-
Sandy Land UWCD	12/12/2001	\$	500,000	\$	-
Panhandle GCD	1/16/2002	\$	500,000	\$	-
Medina County GCD	2/20/2002	\$	200,000	\$	-
Sandy Land UWCD	12/11/2002	\$	500,000	\$	-
Panhandle GCD	3/19/2003	\$	250,000	\$	-
Sandy Land UWCD	2/17/2004	\$	2,000,000	\$	-
Panhandle GCD	4/21/2004	\$	300,000	\$	-
Panhandle GCD	9/22/2004	\$	500,000	\$	-
Panhandle GCD	10/18/2005	\$	500,000	\$	71,000
Panhandle GCD	2/27/2007	\$	500,000	\$	139,000
Sandy Land UWCD	2/27/2007	\$	500,000	\$	29,247
Sandy Land UWCD	2/25/2008	\$	500,000	\$	152,000
Panhandle GCD	6/23/2008	\$	1,000,000	\$	502,303
Sandy Land UWCD	4/22/2010	\$	2,000,000	\$	1,198,000
Panhandle GCD	12/16/2010	\$	1,000,000	\$	753,000
Panhandle GCD	10/20/2011	\$	1,000,000	\$	875,000
Sandy Land UWCD	2/2/2012	\$	2,000,000	\$	1,741,000
Panhandle GCD	9/20/2012	\$	2,000,000	\$	2,000,000
<b>TWDB Ag Loans, 1986-2013</b>		<b>\$</b>	<b>58,765,630</b>	<b>\$</b>	<b>7,460,550</b>

# ATTACHMENT D

## Agricultural Water Conservation Grants Program

CD	Conservation District
CRD	Conservation and Reclamation District
GCD	Groundwater Conservation District
ID	Irrigation District
MWD	Municipal Water District
RA	River Authority
SWCD	Soil and Water Conservation District
UG & FWCD	Underground and Fresh Water Conservation District
UWCD	Underground Water Conservation District
WCD	Water Conservation District
WCID	Water Control and Improvement District
WID	Water Improvement District
WMD	Water Management District

Fiscal Year	Grant Recipient	Amount Funded	Project Type
1986	High Plains UWCD # 1	\$ 15,294.00	Valves and Meters
1986	Maverick County WCID # 1	\$ 5,019.00	Current Meters
1986	Wharton SWCD	\$ 8,671.00	Meters, Gauges, Hand Tools
1986	Brazos County SWCD	\$ 4,397.00	Mobile Field Lab
1987	Coastal Plains SWCD	\$ 1,252.00	Flow & Moisture Meter
1987	Evergreen UWCD	\$ 4,442.00	Mobile Field Lab
1987	Evergreen UWCD	\$ 3,956.00	Electronic Flowmeter
1987	Nueces-Frio-Sabinal SWCD	\$ 3,956.00	Electronic Flowmeter
1987	Medina Valley SWCD	\$ 3,956.00	Electronic Flowmeter
1987	Glasscock County UWCD	\$ 16,650.00	Computer Elevation Instrument
1987	Maverick County WCID # 1	\$ 5,187.00	Flowmeter
1988	North Plains GCD	\$ 27,102.00	LEPA Sprinkler Demonstration
1988	High Plains UWCD # 1	\$ 19,592.00	Metering Equipment
1988	Winter Garden SWCD	\$ 3,956.00	Electronic Flowmeter
1988	Hickory UWCD # 1	\$ 5,361.00	Electronic Flowmeter
1988	High Plains UWCD # 1	\$ 6,337.00	Flowmeter
1989	North Plains GCD	\$ 12,675.00	Electronic Flowmeters
1989	Mustang SWCD	\$ 16,704.00	Computer Elevation Instrument
1989	Panhandle GCD	\$ 6,337.00	Electronic Flowmeter
1989	Sherman County SWCD	\$ 6,337.50	Electronic Flowmeter
1989	Evergreen UWCD	\$ 2,500.00	Furrow Dikers
1989	Hale County SWCD	\$ 6,637.00	Electronic Flowmeter
1989	Maverick County WCID # 1	\$ 5,276.00	Flowmeters
1989	North Plains GCD	\$ 6,337.00	Electronic Flowmeter
1989	Bosque SWCD	\$ 11,812.00	Flow Meters
1989	Upper Leon SWCD	\$ 5,715.00	Flowmeters
1989	Dawson County SWCD	\$ 17,021.00	Computer Elevation Instrumentation
1989	Blackwater Valley SWCD	\$ 6,637.00	Electronic Flowmeter
1989	Lynn County SWCD	\$ 9,503.00	Computer Elevation Instrument
1989	Tierra Blanca SWCD	\$ 6,337.00	Electronic Flowmeter
1990	Taylor SWCD	\$ 9,000.00	Electronic Elevation Instrument
1990	Hale County SWCD	\$ 2,643.00	Electronic Level
1990	Duck Creek SWCD	\$ 2,762.00	Electronic Level
1990	Hemphill SWCD	\$ 2,733.00	Electronic Elevation Instrument

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1990	High Plains UWCD # 1	\$	5,917.00	Moisture Measuring System
1990	Hill Country UWCD	\$	3,648.00	Water Quality Testing Equipment
1990	Howard SWCD	\$	2,313.00	Electronic Elevation Instrument
1990	Hutchinson SWCD	\$	2,205.00	Electronic Elevation Instrument
1990	Caprock SWCD	\$	1,916.00	Electronic Elevation Instrument
1990	Hickory UWCD # 1	\$	3,592.00	Water Quality Testing Equipment
1990	Salt Fork SWCD	\$	2,205.00	Electronic Elevation Instrument
1990	Terry SWCD	\$	2,130.00	Electronic Elevation Instrument
1990	Tule Creek SWCD	\$	9,281.00	Electronic Flow Meter
1990	California Creek SWCD	\$	18,078.00	Electronic Elevation Instrument
1990	Coke County UWCD	\$	2,707.00	Water Quality Testing Equipment
1990	Lower Pease River SWCD	\$	10,500.00	Electronic Elevation Instrument
1990	Upper Pease SWCD	\$	2,800.00	Electronic Elevation Instrument
1990	Barton Springs/Edwards Aquifer CD	\$	11,129.00	Water Quality Testing Equipment
1990	Irion County WCD	\$	2,824.00	Water Quality Testing Equipment
1990	North Plains GCD	\$	4,635.00	Demonstration Agricultural Chemicals
1990	Nueces SWCD	\$	2,205.00	Electronic Elevation Instrument
1990	Panhandle GCD	\$	1,017.00	Water Quality Testing Equipment
1990	Roberts SWCD	\$	2,250.00	Electronic Elevation Equipment
1990	Sterling County UWCD	\$	2,991.00	Water Quality Testing Equipment
1990	Wilbarger SWCD	\$	2,205.00	Electronic Elevation Instrument
1990	Permian Basin UWCD	\$	7,395.00	Water Quality Testing Equipment
1990	Wheeler County SWCD	\$	2,077.00	Electronic Elevation Equipment
1990	Bowie County SWCD	\$	2,673.00	Electronic Elevation Equipment
1990	Glasscock County UWCD	\$	2,557.00	Water Quality Testing Equipment
1990	Haskell SWCD	\$	2,621.00	Electronic Elevation Instrument
1990	Lipan Kickapoo WCD	\$	12,324.00	Water Quality Testing Equipment
1990	Donley SWCD	\$	2,478.00	Electronic Elevation Instrument
1990	Hall Childress SWCD	\$	4,400.00	Electronic Elevation Instrument
1990	Hansford SWCD	\$	2,351.00	Electronic Elevation Instrument
1990	Maverick SWCD	\$	18,153.00	Electronic Elevation Instrument
1990	Ochiltree SWCD	\$	2,673.00	Electronic Elevation Instrument
1990	Running Water SWCD	\$	2,345.00	Electronic Elevation Equipment
1990	Wichita SWCD	\$	10,500.00	Electronic Elevation Instrument
1990	Coastal SWCD	\$	2,555.00	Water Quality Testing Equipment
1990	Hockley County SWCD	\$	9,371.00	Electronic Elevation Instrument
1990	Rio Blanco SWCD	\$	2,808.00	Electronic Elevation Instrument
1990	Running Water SWCD	\$	5,655.00	Electronic Flowmeter
1990	Sandy Land UWCD	\$	16,709.00	Water Quality Measurement
1990	Staked Plains SWCD	\$	1,931.00	Electronic Elevation Equipment
1990	Wichita Brazos SWCD	\$	3,000.00	Electronic Elevation Equipment
1990	Burleson Lee SWCD	\$	2,205.00	Electronic Elevation Instrument
1990	Collingsworth County UWCD	\$	7,200.00	LEPA Sprinkler Demonstration
1990	Evergreen UWCD	\$	3,491.00	Demonstration Irrigation Scheduling
1990	Starr County SWCD	\$	3,933.00	Demonstration Irrigation Scheduling
1990	Coastal Plains SWCD	\$	2,250.00	Electronic Elevation Instrument
1990	Hale Lubbock SWCD	\$	13,130.00	Electronic Elevation Instrument
1990	Howard SWCD	\$	2,186.25	Electronic Elevation Instrument
1990	Tom Green WCD	\$	583.00	Soil Moisture Meter
1990	Young SWCD	\$	2,520.00	Electronic Elevation Instrument
1990	Barton Springs/Edwards Aquifer CD	\$	10,000.00	Monitoring Equipment
1990	Andrew Kent SWCD	\$	2,940.00	Electronic Elevation Instrument
1990	Irion County WCD	\$	2,790.00	Water Quality Testing Equipment
1990	Parmer County SWCD	\$	5,797.00	Electronic Flowmeter

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1991	Upper Colorado SWCD	\$	2,677.00	Electronic Elevation Instrument
1991	Hickory UWCD # 1	\$	5,696.00	Water Quality Mapping Equipment
1991	Santa Rita UWCD	\$	3,903.00	Water Quality Testing Equipment
1991	Gray County SWCD	\$	2,205.00	Electronic Elevation Instrument
1991	Hale Lubbock SWCD	\$	1,900.00	Enclosed Trailer
1991	Upper Leon River MWD	\$	22,579.00	Water Quality Testing Equipment
1991	Lipan-Kickapoo WCD	\$	9,048.75	Water Quality Mapping Equipment
1991	Lower Colorado RA	\$	49,800.00	Gauges & Metering Equipment
1991	Toyah-Limpia SWCD	\$	2,073.00	Electronic Elevation Instrument
1991	Lynn County SWCD	\$	2,535.00	Electronic Elevation Instrument
1991	Sandy Land UWCD	\$	19,114.00	LEPA Demonstration
1991	Mesa UWCD	\$	9,727.35	Water Quality & Flow Meters
1991	Hickory UWCD # 1	\$	2,958.00	Water Quality Testing Equipment
1991	High Plains UWCD # 1	\$	15,000.00	Drip Irrigation Demonstration
1991	Sterling County UWCD	\$	8,852.25	Water Quality Testing Equipment
1991	Foard County SWCD	\$	2,587.00	Electronic Elevation Instrument
1991	Glasscock County UWCD	\$	897.00	Water Quality Equipment
1991	Hansford SWCD	\$	5,587.50	Electronic Flowmeter
1991	Hartley SWCD	\$	5,587.50	Electronic Flowmeter
1991	Highland SWCD	\$	2,205.00	Electronic Elevation Equipment
1991	Hill Country UWCD	\$	1,753.00	Water Quality Testing Equipment
1991	Medina Valley SWCD	\$	4,490.00	Soil Moisture Meter
1991	Rio Blanco SWCD	\$	5,692.00	Electronic Flowmeter
1991	Sandy Land UWCD	\$	8,407.00	Water Quality Testing Equipment
1991	Cochran SWCD	\$	5,749.00	Electronic Flowmeter
1991	Irion County WCD	\$	11,786.00	Water Quality Mapping Equipment
1991	Hockley County SWCD	\$	5,692.50	Electronic Flowmeter
1991	Medina Valley SWCD	\$	3,420.00	Furrow Diker
1991	Navasota SWCD	\$	2,200.00	Electronic Elevation Instrument
1991	Parmer County SWCD	\$	2,205.00	Electronic Elevation Equipment
1991	Springhills WMD	\$	3,968.00	Water Quality Testing Equipment
1991	Tierra Blanca SWCD	\$	2,085.00	Electronic Elevation Equipment
1992	Evergreen UWCD	\$	3,033.00	Water Quality Testing Equipment
1992	Ochiltree SWCD	\$	5,587.50	Electronic Flowmeter
1992	Sutton County UWCD	\$	13,275.00	Water Quality Testing Equipment
1992	Terry SWCD	\$	5,850.00	Electronic Flowmeter
1992	Dallam SWCD	\$	5,587.50	Electronic Flowmeter
1992	Hemphill SWCD	\$	1,905.00	Conservation Practice Equipment
1992	Palo Duro SWCD	\$	2,212.50	Electronic Elevation Equipment
1992	Panhandle GCD	\$	11,787.50	Water Quality Mapping
1992	Salt Fork SWCD	\$	5,925.00	Electronic Flowmeter
1992	Sandy Land UWCD	\$	2,730.75	Water Quality Testing Equipment
1992	Wharton SWCD	\$	2,670.00	Electronic Elevation Equipment
1992	Barton Springs/Edwards Aquifer CD	\$	8,000.00	Computers & Software
1992	Hickory UWCD # 1	\$	951.22	Water Level Mapping Equipment
1992	Hill Country UWCD	\$	5,036.16	Water Quality Mapping Equipment
1992	Lipan Kickapoo WCD	\$	2,268.75	Water Quality Testing Equipment
1992	Matagorda County SWCD	\$	2,168.93	Electronic Elevation Equipment
1992	Mitchell SWCD	\$	2,238.75	Electronic Elevation Equipment
1992	North Plains GCD	\$	4,314.00	Electronic Flowmeter
1992	Plateau UWCD	\$	5,962.50	GIS Mapping Equipment
1992	Plateau UWCD	\$	7,462.50	Water Quality Testing Equipment
1992	Upper Clear Fork SWCD	\$	1,200.00	Video Equipment
1992	Evergreen UWCD	\$	6,161.63	Water Quality Mapping Equipment

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1992	Lower Colorado RA	\$	21,750.00	Measuring Equipment
1992	High Plains UWCD # 1	\$	17,197.00	Monitoring Equipment
1993	Bexar-Medina-Atascosa WCID	\$	10,500.00	Water Measuring Equipment
1993	Emerald UWCD	\$	6,573.00	Water Quality Testing Equipment
1993	Garza SWCD	\$	2,122.00	Electronic Evaluation Equipment
1993	Lipan-Kickapoo WCD	\$	2,700.00	Water Quality Testing Equipment
1993	Medina County UWCD	\$	2,408.00	Water Quality Testing Equipment
1993	Mesa UWCD	\$	4,639.50	Water Quality Testing Equipment
1993	Runnels SWCD	\$	2,055.00	Electronic Elevation Equipment
1993	South Plains UWCD	\$	11,985.00	Water Quality Equipment and Flowmeter
1994	Bexar-Medina-Atascosa WCID	\$	13,200.00	Flow Measuring Equipment
1994	Dawson County SWCD	\$	2,017.01	Electronic Elevation Equipment
1994	Lynn County SWCD	\$	5,587.50	Electronic Flowmeter
1994	Wichita Brazos SWCD	\$	10,779.00	Total Station Elevation Equipment
1994	Wilbarger SWCD	\$	11,250.00	Total Station Elevation Equipment
1994	Floyd County SWCD	\$	5,055.00	Electronic Flowmeter
1994	Hall Childress SWCD	\$	12,820.11	Total Station Elevation Equipment
1994	Hickory UWCD # 1	\$	1,329.95	Water Quality Testing Equipment
1994	High Plains UWCD # 1	\$	16,050.00	Water Quality Mapping Equipment
1994	Hudspeth County CRD # 1	\$	36,330.00	Water Flow Measuring Equipment
1994	Irion County WCD	\$	3,667.50	Water Quality Testing Equipment
1994	Plateau UWCD	\$	1,256.25	Water Quality Mapping Equipment
1994	Springhills WMD	\$	9,243.00	Water Quality Mapping Equipment
1995	Gaines County SWCD	\$	5,055.00	Electronic Flowmeter
1995	Mustang SWCD	\$	1,863.38	Electronic Elevation Equipment
1995	Hale County SWCD	\$	5,250.00	Electronic Flowmeter
1995	Tom Green County WCID # 1	\$	5,006.00	Flowmeter Purchase
1995	Barton Springs/Edwards Aquifer CD	\$	5,250.00	Flowmeter Purchase
1995	Panhandle GCD	\$	4,468.50	Irrigation Scheduling Network
1995	Barton Springs/Edwards Aquifer CD	\$	4,500.00	Water Quality Testing Equipment
1995	Sutton County UWCD	\$	7,830.00	Water Quality Testing Equipment
1995	Edwards UWD	\$	12,000.00	Water Quality Testing Equipment
1995	Southmost SWCD	\$	13,500.00	Water Conservation Practices
1995	Maverick SWCD	\$	1,500.00	Software Purchase
1995	Duck Creek SWCD	\$	1,000.00	Flowmeter Purchase
1995	Lubbock County SWCD	\$	1,950.00	Electronic Elevation Equipment
1995	Hockley County SWCD	\$	2,025.00	Electronic Elevation Equipment
1995	Floyd County SWCD	\$	2,000.00	Electronic Elevation Equipment
1995	Middle Concho SWCD	\$	8,125.00	Elevation Equipment
1995	Hill Country UWCD	\$	2,750.00	Flowmeters
1995	North Plains GCD	\$	4,450.00	Water Quality Testing Equipment
1995	North Plains GCD	\$	9,500.00	Water Quality Testing Equipment
1996	Sandy Land UWCD	\$	14,985.00	Mapping & Water Quality Equipment
1996	Hansford SWCD	\$	600.00	Video Equipment
1996	El Paso County WID # 1	\$	18,000.00	Water Measurement Equipment
1996	North Plains GCD	\$	4,330.00	Water Quality Testing Equipment
1996	Sutton County UWCD	\$	1,650.00	Water Quality Mapping Equipment
1996	North Plains GCD	\$	2,140.00	Water Quality Testing Equipment
1996	Barton Springs/Edwards Aquifer CD	\$	3,500.00	Monitoring Equipment
1996	Collingsworth County UWCD	\$	4,605.00	Irrigation Scheduling System
1996	Tom Green SWCD	\$	8,685.00	Elevation Surveying System
1996	Lamb County SWCD	\$	4,763.00	Electronic Flowmeter
1996	San Patricio SWCD	\$	12,000.00	Water Quality Mapping
1996	Upper Pecos SWCD	\$	32,719.00	Surveying System



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1996	Salt Fork SWCD	\$	4,725.00	Demonstration Drip Irrigation
1997	Robertson SWCD	\$	9,300.00	Electronic Elevation System
1997	Caprock SWCD	\$	4,958.00	Electronic Flow Meter
1997	Frio SWCD	\$	4,665.00	Electronic Flow Meter
1997	Moore County SWCD	\$	5,010.00	Electronic Flow Meter
1997	Cochran SWCD	\$	2,176.00	Elevation System
1997	Upper Clear Fork SWCD	\$	1,936.00	Elevation System
1997	Palo Duro SWCD	\$	4,512.00	Electronic Flow Meter
1997	Upper Pease SWCD	\$	9,820.00	Electronic Elevation System
1997	Gray County SWCD	\$	4,564.00	Electronic Flow Meter
1997	Blackwater Valley SWCD	\$	1,939.00	Elevation System
1997	Mustang SWCD	\$	2,322.00	Elevation System
1997	Springhills WMD	\$	3,450.00	Water Quality Testing Equipment
1997	Lipan Kickapoo WCD	\$	3,270.00	Flow Meters, and Water Testing Equipment
1997	Lipscomb SWCD	\$	1,660.00	Surveying System
1997	Wheeler County SWCD	\$	5,010.00	Electronic Flow Meter
1997	Taylor SWCD	\$	10,356.00	Electronic Surveying System
1997	Salt Fork SWCD	\$	12,092.00	Electronic Surveying System
1997	Hutchinson SWCD	\$	5,010.00	Electronic Flow Meter
1997	Dimmit County SWCD	\$	4,674.00	Electronic Flow Meter
1997	Nueces Frio Sabinal SWCD	\$	4,817.00	Electronic Flow Meter
1997	Maverick County WCID # 1	\$	12,000.00	Flow Meters, Flumes, and Water Lev. Rec.
1997	Hemphill SWCD	\$	5,010.00	Electronic Flow Meter
1998	Tierra Blanca SWCD	\$	20,645.00	Electronic Surveying System
1998	Medina Valley SWCD	\$	4,515.00	Electronic Flow Meter
1998	Coastal Plains SWCD	\$	34,912.50	GeoStar System
1998	Sherman County SWCD	\$	4,860.00	Electronic Flowmeter
1998	Midland SWCD	\$	4,100.00	Electronic Flow Meter
1998	Hansford SWCD	\$	11,829.00	Electronic Surveying Equipment
1998	Panhandle GCD	\$	107,141.00	Electronic Flow Meter
1998	North Plains GCD	\$	54,593.00	Electronic Flow Meter
1999	California Creek SWCD	\$	30,000.00	GPS Surveying and Mapping System
1999	Tierra Blanca SWCD	\$	4,413.00	Portable Flowmeter
1999	El Paso County WID # 1	\$	5,318.00	Telemetry Site
1999	Howard SWCD	\$	472.00	Electronic Surveying Equipment
1999	Willacy SWCD	\$	1,642.00	Flow Meter and Equipment
1999	Mustang SWCD	\$	5,329.00	Electronic Flowmeter
1999	Parmer County SWCD	\$	4,413.00	Portable Flowmeter
1999	Running Water SWCD	\$	4,413.00	Portable Flowmeter
1999	Garza County UG & FWCD	\$	6,000.00	Flowmeter
1999	Emerald UWCD	\$	2,940.00	Mapping Software
1999	Fayette SWCD	\$	7,606.00	Conservation Mapping Equipment
1999	Lipan Kickapoo WCD	\$	1,875.00	Water Quality Mapping Equipment
1999	Mitchell SWCD	\$	8,700.00	Demo-Drip Irrigation-Cantaloupes
2000	El Paso County WID # 1	\$	12,000.00	Telemetry Sites
2000	Hickory UWCD # 1	\$	2,977.00	Mapping Equipment
2000	Llano Estacado UWCD	\$	6,810.00	Electronic Flow Meter
2000	South Plains UWCD	\$	6,135.00	Flowmeter & Equipment
2000	McClellan Creek SWCD	\$	2,524.00	Laserplane
2000	Blackwater Valley SWCD	\$	5,122.50	Flowmeter
2000	Dallam SWCD	\$	5,111.25	Flowmeter
2000	Duck Creek SWCD	\$	2,031.00	Laser Surveying System
2000	Andrew Kent SWCD	\$	2,030.63	Laser Surveying System
2000	Haskell SWCD	\$	10,782.00	Demo-Drip Irrigation

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2000	Upper Pecos SWCD	\$	28,808.00	Irrigation Monitoring & Evaluation
2000	Willacy SWCD	\$	669.00	Enviroscape Model
2000	Mesa UWCD	\$	29,373.00	Electronic Flow Meter
2001	Wichita Brazos SWCD	\$	13,850.00	Demo-Drip Irrigation
2001	Midland SWCD	\$	36,150.00	Demo-Drip Irrigation
2001	Lower Clear Fork Brazos SWCD	\$	9,849.00	Laser Surveying System
2001	Reeves County WID # 1	\$	25,000.00	Reservoir Release Gate
2001	El Paso County WID # 1	\$	25,000.00	Water Measurement Equipment
2001	Bastrop County SWCD	\$	465.00	Surveying Rod & Radios
2001	Caldwell Travis SWCD	\$	465.00	Surveying Rod & Radios
2001	Tule Creek SWCD	\$	4,050.00	Electronic Flowmeter
2002	Wichita Brazos SWCD	\$	750.00	Flowmeter
2002	Wilbarger SWCD	\$	5,120.50	Flowmeter
2002	Rio Blanco SWCD	\$	4,807.50	Electronic Flowmeter
2002	Hartley SWCD	\$	5,142.75	Electronic Flowmeter
2002	Hockley County SWCD	\$	4,807.50	Electronic Flowmeter
2002	Floyd County SWCD	\$	4,807.50	Electronic Flowmeter
2002	Rolling Plains GCD	\$	2,381.25	Water Quality Testing Equipment
2002	Delta Lake ID	\$	9,082.50	Impeller Flow Meters
2002	Hudspeth County CRD # 1	\$	25,000.00	Impeller Flow Meters
2002	Lower Colorado RA	\$	6,449.00	Data Logging Equipment
2002	California Creek SWCD	\$	24,887.25	Demo-Drip Irrigation
2002	High Plains UWCD # 1	\$	10,079.00	Portable Flowmeters
2002	Parmer Co. SWCD	\$	3,463.97	Plotter
2002	Lower Pease River SWCD	\$	5,120.00	Electronic Flowmeter
2002	Culberson County GCD	\$	19,990.00	Impeller Flow Meters
2003	El Paso County WID # 1	\$	25,000.00	Water Measurement Equipment
2003	Engelman ID	\$	8,902.50	Impeller Flow Meters
2003	Mesa UWCD	\$	7,200.00	Impeller Flow Meters
2003	Presidio County UWCD	\$	1,650.00	Water Level Tape
2003	Blanco Pedernales GCD	\$	6,000.00	Conservation & Quality Testing Equipment
2003	Moore County SWCD	\$	5,343.75	Electronic Flow Meter
2003	High Plains UWCD # 1	\$	10,335.00	Two Electronic Flow Meters
2003	Rolling Plains GCD	\$	11,421.00	Impeller Flow Meters
2003	Evergreen UWCD	\$	8,047.00	Impeller Flow Meters
2003	Gateway GCD	\$	5,508.00	Impeller Flow Meters
2004	Texas Agricultural Experiment Station	\$	40,600.00	Drip Irrigation Demonstrations
2004	Texas Agricultural Experiment Station	\$	100,000.00	Research and Demonstration of Best Management Practices
2004	Texas Agricultural Experiment Station	\$	44,400.00	Texas ET Network Operational Support
2004	Texas State Soil & Water Conservation Board	\$	115,000.00	Statewide Technical Assistance
2004	Cameron County ID No 2	\$	50,000.00	Irrigation Measurement Structures
2004	High Plains UWCD No. 1	\$	20,000.00	Irrigation Metering Equipment
2004	Uvalde County UWCD	\$	54,000.00	Installation of Lysimeters and Vegetable Irrigation Research
2004	La Feria ID	\$	25,000.00	Irrigation Measurement Structures
2004	Sandy Land UWCD	\$	51,800.00	Drip Irrigation Demonstrations
2004	North Plains GCD	\$	23,500.00	Center Pivot Irrigation Demonstrations
2004	North Plains GCD	\$	44,000.00	Drip Irrigation Demonstrations
2005	Texas State Soil & Water Conservation Board	\$	100,000.00	Statewide Technical Assistance
2005	Texas Agricultural Experiment Station	\$	150,000.00	Precision Irrigation Network Demonstrations
2005	Texas Agricultural Experiment Station	\$	85,265.00	Drought-Tolerant Corn Research
2005	Post Oak Savannah GCD	\$	6,562.00	Portable flow meter

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2005	Sandy Land UWCD	\$	41,093.00	Drip Irrigation Demonstrations
2005	Tule Creek SWCD	\$	1,050.00	Portable flow meter
2005	Lower Neches Valley Authority	\$	61,000.00	Irrigation Metering Equipment
2005	Coastal Bend GCD	\$	50,000.00	Irrigation Metering Equipment
2005	Texas Cooperative Extension	\$	45,000.00	Horticulture Industry Survey and Demonstrations
2006	Texas Cooperative Extension	\$	100,000.00	Agri-Partners Program Demonstrations
2006	Texas Agricultural Experiment Station	\$	250,000.00	Precision Irrigation Network Demonstrations
2006	Texas Cooperative Extension	\$	250,000.00	Irrigation Training Program
2007	Texas State Soil & Water Conservation Board	\$	100,000.00	Statewide Technical Assistance
2007	Uvalde County UWCD	\$	68,992.00	Irrigation Metering Equipment
2007	Mesa UWCD	\$	35,729.00	Irrigation Metering Equipment
2008	Harlingen ID	\$	249,015.00	Technology Transfer
2008	Texas Agricultural Experiment Station	\$	198,835.00	Evapotranspiration Network Assessments
2008	Panhandle GCD	\$	149,968.00	Irrigation Metering Equipment
2009	Texas AgriLife Research	\$	275,000.00	Remote Sensing Research
2009	Texas AgriLife Research	\$	99,076.00	Texas High Plains ET Network Enhancements
2009	Panhandle GCD	\$	125,000.00	Economic Impact Study
2009	Lower Colorado RA	\$	99,219.00	Garwood Irrigation District Measurement Structures
2010	El Paso County WCID No. 1	\$	50,000.00	Irrigation Metering Equipment
2010	Hemphill County UWCD	\$	36,491.00	Irrigation Metering Equipment
2010	Medina County GCD	\$	60,000.00	Irrigation Metering Equipment
2010	Panhandle GCD	\$	63,375.00	Irrigation Metering Equipment
2010	Sandy Land UWCD	\$	11,000.00	Conservation Education
2010	Texas AgriLife Extension	\$	57,321.00	Small-Landowner and Youth Conservation Education
2010	Panhandle GCD	\$	127,300.00	Irrigation Meter Calibration Study
2010	Sandy Land UWCD	\$	47,801.00	Irrigation System Audits
2011	Colorado County GCD	\$	50,000.00	Irrigation Metering Equipment
2011	Hemphill County UWCD	\$	10,373.00	Irrigation Metering Equipment
2011	Texas AgriLife Research	\$	77,208.00	Irrigation Conservation Demonstrations
2011	North Plains GCD	\$	250,000.00	Irrigation Conservation Demonstrations
2011	Texas Tech University	\$	101,049.00	Irrigation System Audits
2012	Coastal Bend GCD	\$	25,000.00	Irrigation Metering Equipment
2012	Mesquite GCD	\$	50,000.00	Irrigation Metering Equipment
2012	Panhandle Regional Planning Commission	\$	200,000.00	Texas High Plains ET Network Educational Enhancements
2012	Texas A&M University - Kingsville	\$	136,982.00	Citrus Irrigation Demonstrations
2013	Harlingen ID	\$	200,000.00	Irrigation System Improvements
2013	Lower Colorado RA	\$	101,700.00	Irrigation System Improvements
2013	Lower Neches Valley Authority	\$	100,000.00	Irrigation Metering Equipment
2013	U.T. Bureau of Economic Geology	\$	194,029.00	Remote Sensing Research
<b>340 Ag Grants from 1986 to 2013, Total (excluding the 2 long-term demonstration initiative projects)</b>		<b>\$</b>	<b>7,255,690.34</b>	

## **Agricultural Water Conservation Demonstration Projects**

Through Senate Bill 1053, 78<sup>th</sup> legislative session, TWDB was given the authority to provide grant funding for agricultural water conservation projects. Through a formal request for applications and competitive review process, staff selected and TWDB approved and funded two long-term projects in September 2004. These long-term initiatives demonstrate and evaluate cost-effective technologies that increase water conservation and irrigation water use efficiency. The demonstration sites evaluate and determine impacts on crop productivity, irrigation water use, and available water supplies. These grants also provide education and outreach to enable the transfer of available water conservation technology to irrigated farms.

- The Texas Project for Ag Water Efficiency in the Lower Rio Grande Valley was funded by TWDB in September of 2004 through the Harlingen Irrigation District for \$3,775,225 and is expected to be completed in 2015. The Rio Grande Center for Ag Water Efficiency was constructed through the project to serve as the district's central control facility, integrating the irrigation water distribution network and management of operations. The center provides flow meter demonstrations and calibration checks, along with training workshops geared to district personnel and area agricultural producers. The project is also demonstrating irrigation practices in real on-farm situations, quantifying the expense of water savings and the effect on producer yields, and demonstrating to the farmer whether the water conservation has increased or decreased his bottom line.<sup>1</sup>
- The Texas Alliance for Water Conservation in the Southern High Plains was funded in September of 2004 through Texas Tech University for \$6,224,775 and is expected to be completed in 2014. The project is identifying technologies and practices that conserve irrigation water while maintaining or enhancing individual farm profitability.<sup>2</sup> Senate Bill 1, Rider 22 of the 83<sup>rd</sup> Legislature directed TWDB to provide \$3.6 million from the Agricultural Water Conservation Fund in grants to the Texas Alliance for Water Conservation. At the October 17, 2013, Board Meeting, the Board approved Fiscal Year 2014 funding of \$1.8 million; the additional \$1.8 million will be considered by the Board during Fiscal Year 2015.

The demonstration projects have provided valuable research to identify cost-effective solutions to address the irrigation conservation needs in each of their respective regions. Many of the technologies and practices identified have application in other areas of the state as well. The demonstration projects complement the state and regional water planning process through identifying those practices and technologies included as irrigation conservation strategies that offer the most cost-effective, reasonable, and workable solutions to achieve actual water savings.

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<sup>1</sup> 2012 Annual Report of the Lower Rio Grande Valley demonstration initiative, Texas Project for Ag Water Efficiency, [http://www.twdb.state.tx.us/conservation/agriculture/demonstration/doc/AWE\\_AnnualReport2012.pdf](http://www.twdb.state.tx.us/conservation/agriculture/demonstration/doc/AWE_AnnualReport2012.pdf)

<sup>2</sup> 2012 Annual Report of the Texas Southern High Plains demonstration project, Texas Alliance for Water Conservation, [http://www.twdb.state.tx.us/conservation/agriculture/demonstration/doc/TAWC\\_AnnualReport\\_2012.pdf](http://www.twdb.state.tx.us/conservation/agriculture/demonstration/doc/TAWC_AnnualReport_2012.pdf)

### Water Savings Benefits of the Program

Agricultural Water Conservation Reported Water Savings and Funding in Fiscal Years 2004 through 2013								
Fiscal Year	Ag Grants Water Savings (Acre-Feet)	Ag Loans Water Savings (Acre-Feet)	Total Water Savings (Acre-Feet)	Ag Grants (Regular)	Ag Grants (Demonstration Initiatives)	Total Grant Funding	Ag Loans	Total Funding
2004	17,403	14,643	32,046	\$ 568,300	\$ 10,000,000	\$ 10,568,300	\$ 2,300,000	\$ 12,868,300
2005	7,100	12,954	20,054	\$ 539,970		\$ 539,970	\$ 500,000	\$ 1,039,970
2006	19,779	8,278	28,057	\$ 600,000		\$ 600,000	\$ 500,000	\$ 1,100,000
2007	17,151	12,392	29,543	\$ 204,721		\$ 204,721	\$ 1,000,000	\$ 1,204,721
2008	10,490	8,071	18,561	\$ 597,818		\$ 597,818	\$ 1,500,000	\$ 2,097,818
2009	52,019	543	52,562	\$ 598,295		\$ 598,295	\$ 2,000,000	\$ 2,598,295
2010	97,710	5,902	103,612	\$ 453,288		\$ 453,288		\$ 453,288
2011	49,022	6,498	55,520	\$ 488,630		\$ 488,630	\$ 1,000,000	\$ 1,488,630
2012	44,131	10,781	54,912	\$ 411,982		\$ 411,982	\$ 3,000,000	\$ 3,411,982
2013	17,805	12,585	30,390	\$ 595,729		\$ 595,729		\$ 595,729
	332,610	92,647	425,256	\$ 5,058,733	\$ 10,000,000	\$ 15,058,733	\$ 11,800,000	\$ 26,858,733

*Footnotes:*

- 2004 and 2005 water savings volumes include some reporting from previous years' projects funded through capital equipment grant funds.
- 2007 water savings estimate does not include 537,288 acre-feet of reported water saved through a grant project with the Texas State Soil and Water Conservation Board. They figured the result of their technical assistance grant project resulted in a 6 percent water savings across all irrigated acres in the state.

Based on the water savings estimates reported from agricultural grant and loan recipients, the following is a cost per acre-foot of water savings calculations for the agricultural water conservation program since 2004:

Regular Ag Grants <sup>1</sup> :	Cost of Water Savings per Acre-Foot =	\$15.21
Regular + Demonstration Initiatives <sup>2</sup> :	Cost of Water Savings per Acre-Foot =	\$45.27
Ag Loans <sup>3</sup> :	Cost of Water Savings per Acre-Foot =	\$127.37
Grants + Demos + Loans:	Cost of Water Savings per Acre-Foot =	\$63.16

<sup>1</sup> Includes water savings reported from regular agricultural grant projects and demonstration projects, yet only the funding from the regular grants program.

<sup>2</sup> Includes water savings reported from regular agricultural grant projects and demonstration projects, and the funding from the regular grants program and demonstrations.

<sup>3</sup> Ag Loans water savings calculation results in the highest dollar amount cost of water savings per acre-foot, yet all these costs are recovered through loan repayments.

ATTACHMENT G

**Agricultural Water Conservation Fund Projected Balance**

Fiscal Year	Beginning Fund Balance (1)	Existing Loan Repayments	Rider 25 GR Deposits (2)	Administrative Costs	Annual Grants	Rider 22 Grants (3)	Rider 25 Grants (1)	Ending Fund Balance
2014	\$ 9,365,940	\$ 1,382,197	\$ 1,500,000	\$338,888	\$600,000	\$ 1,800,000	\$ 1,500,000	\$ 8,009,249
2015	\$ 8,009,249	\$ 1,299,140	\$ 1,500,000	\$338,888	\$600,000	\$ 1,800,000	\$ 1,500,000	\$ 6,569,501
2016	\$ 6,569,501	\$ 1,167,216	\$ -	\$338,888	\$600,000	\$ -	\$ -	\$ 6,797,828
2017	\$ 6,797,828	\$ 1,154,259	\$ -	\$338,888	\$600,000	\$ -	\$ -	\$ 7,013,199
2018	\$ 7,013,199	\$ 740,843	\$ -	\$338,888	\$600,000	\$ -	\$ -	\$ 6,815,155
2019	\$ 6,815,155	\$ 751,688	\$ -	\$338,888	\$600,000	\$ -	\$ -	\$ 6,627,955
2020	\$ 6,627,955	\$ 308,515	\$ -	\$338,888	\$600,000	\$ -	\$ -	\$ 5,997,582
2021	\$ 5,997,582	\$ 183,133	\$ -	\$338,888	\$600,000	\$ -	\$ -	\$ 5,241,827
2022	\$ 5,241,827	\$ 183,851	\$ -	\$338,888	\$600,000	\$ -	\$ -	\$ 4,486,790
2023	\$ 4,486,790	\$ 183,567	\$ -	\$338,888	\$600,000	\$ -	\$ -	\$ 3,731,469
2024	\$ 3,731,469	\$ 183,284	\$ -	\$338,888	\$600,000	\$ -	\$ -	\$ 2,975,865
2025	\$ 2,975,865	\$ -	\$ -	\$338,888	\$600,000	\$ -	\$ -	\$ 2,036,977
2026	\$ 2,036,977	\$ -	\$ -	\$338,888	\$600,000	\$ -	\$ -	\$ 1,098,089
2027	\$ 1,098,089	\$ -	\$ -	\$338,888	\$600,000	\$ -	\$ -	\$ 159,201
2028	\$ 159,201	\$ -	\$ -	\$159,201	\$ -	\$ -	\$ -	\$ -
2029	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

- (1) Fiscal Year 2014 Beginning Fund Balance is equal to the Agricultural Water Conservation Special Revenue Fund plus the Agricultural Water Conservation Enterprise Fund less existing encumbrances, \$4,974,442.66 + \$5,722,919.98 - \$1,331,422.42 = \$9,365,940.22.
- (2) Rider 25 - Agricultural Water Conservation Monitoring - up to \$1,500,000 in fiscal year 2014 and up to \$1,500,000 in fiscal year 2015 to be appropriated from General Revenue to be transferred to the Agricultural Water Conservation Fund to be used for the Agricultural Water Conservation Grant Program. GR = General Revenue.
- (3) Rider 22 - Texas Alliance for Water Conservation Demonstration Project - \$1,800,000 appropriated in each fiscal year from the Agricultural Water Conservation Fund for the purpose of making grants to the Texas Alliance for Water Conservation Demonstration Project.